UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/618,950	07/19/2000	Brian Lo Bue	CISCO-1608	2135

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EXAMINER
STRANGE, AARON N

ART UNIT	PAPER NUMBER
2153	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	09/618,950	LO BUE ET AL.
	Examiner	Art Unit	
	AARON STRANGE	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>14 January 2008</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-3,6-33,36-43,45,46 and 48-76</u> is/are pending in the application.

     4a) Of the above claim(s) <u>13-30</u> is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-3,6-12,31-33,36-43,45,46 and 48-76</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a) ☐ All   b) ☐ Some * c) ☐ None of:

       1. ☐ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____.

       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

U.S. Patent and Trademark Office

PTOL-326 (Rev. 08-06)   Office Action Summary   Part of Paper No./Mail Date 20080403

DETAILED ACTION

Response to Arguments

1.   The Examiner would like to again recommend conducting an interview to discuss

the present application prior to filing a response to the present Office action. The

Examiner feels that an interview would be beneficial to assist in the identification of

allowable subject matter and/or issues for appeal.

2.   Applicant's amendments and arguments, see Remarks filed 1/14/08 (pp. 26-28),

with respect to the rejection(s) of all claims under 35 U.S.C. §112, first paragraph have

been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

3.   Applicant's amendments and arguments are also sufficient to overcome the

rejection of claims 1-3, 31-33, 43, 46, 51, 53 and 55-64 under 35 U.S.C. § 102, since

that rejection was directed to the language of the specification, which described

"adding" identifiers to a master list (Office action of 9/10/07, ¶3) rather than "compiling a

master list of only the USB device adapters which responded to the polling", as in the

presently amended claims. However, upon further consideration, a new grounds of

rejection is made under 35 U.S.C. § 103(a) in view of Ben-Dor.

4.   With regard to claims 65-76, and Applicant has failed to adequately traverse the

Examiner's taking of Official Notice. To adequately traverse a finding of Official Notice,

Applicant must specifically point out the supposed errors in the Examiner's action, which

would include *stating why the noticed fact is not considered to be common knowledge*

or well-known in the art. In this case, Applicant has failed to do. Applicant's "request" for

a reference is not a statement indicating why the noticed facts are not common

knowledge or well-known in the art. *See* MPEP § 2144.03 (C).

Claim Objections

5.   Claim 1 is objected to because of the following informalities:

      a.   There appears to be a typographical error "an address(es) in line 11".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 1-3, 31-33, 43, 46, 51, 53 and 55-64 are rejected under 35 U.S.C. 103(a)

as being unpatentable over Ben-Dor et al. (US 2002/0141418) in view of Gonno (US

6,404,739).

8.   With regard to claims 1 and 31, Ben-Dor discloses a USB remote host control

driver (fig. 1C, 204, and paragraph 46), comprising:

a port for connecting to a network (201), said remote host control driver configured to communicate with one or more USB device adapters (RPS 205) via said port over the network, each of said one or more USB device adapters (205) having a discrete network address (IP address)(Fig. 1c and ¶41-42);

a network protocol stack, said protocol stack for encapsulating USB packets in network packets and for decapsulating USB packets from network packets (¶71);

a polling routing configured to poll each of possible USB device adapters connected to the network in accordance with a candidate list (devices are polled if the network host has not yet received an RPS Announcement packet, the set of these devices is a "candidate list")(¶136);

a memory for storing the master list, the master list containing the discrete network address (IP address) of each of said one or more USB device adapters and an corresponding identifier (globally unique IDs) of each USB device connected via the corresponding USB device adapter to the remote host control driver (¶63-64, 69 and 156-172).

While Ben-Dor does not explicitly recite a memory storing the master list, it is necessarily present, and therefore disclosed by Ben-Dor (See Office action of 4/14/06, ¶5).

Ben-Dor also teaches that the USB device adapters which respond to the polling are added to a master list (at least ¶136 and 166-172). However, Ben-Dor fails to specifically disclose compiling a master list of only the USB device adapters from the candidate list that responded to the polling, since Ben-Dor discloses multiple methods of

acquiring the device identifiers for the master list, including some where the device

adapters are not polled (¶160-164).

However, Ben-Dor further discloses that multicast is not used in some

embodiments (¶159). In these embodiments, the network hosts will never have

"received an RPS Announcement packet (RAP) multicast", and will have to poll the

RPSs to acquire the RPS Announcement packet from the RPS (¶136).

Gonno discloses that networks blocking multicast packets are known in the art

(col. 3, ll. 5-9). One of ordinary skill in the art, aware of these types of networks, would

have recognized from Ben-Dor's teaching of various methods of acquiring RAPs from

the RPSs attached to the network would that they could have acquired all necessary

information by polling the device adapters, as an alternative to multicasting RAPs from

the device adapters. This would have been advantageous since it would have allowed

tracking and management of USB devices in a network where multicasting is prohibited.

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to poll all of the devices as an alternative to receiving

multicast communications from some of them, to ensure that devices could be detected

and identified when the network blocks or otherwise prohibits multicast communications.

9.   With regard to claims 2 and 32, Ben-Dor further discloses that said polling routine

is further configured to contact each of said USB device adapters which responded to

the polling in accordance with the master list, identify each of said USB devices

connected to each USB device adapter, and store the identifications of the USB devices

in said memory (each device adapter transmits a topology of its local bus)(at least ¶68-69 and 159-172).

10.   With regard to claims 3 and 33, Ben-Dor further discloses that the network packets are Ethernet packets (¶90-91).

11.   Claims 43 and 46 are rejected under the same rationale as claim 1, since they recite substantially identical subject matter. Any differences between the claims do not result in patentably distinct claims and all of the limitations are taught by the above cited art.

12.   Claims 51 and 53 are rejected under the same rationale as claim 2, since they recite substantially identical subject matter. Any differences between the claims do not result in patentably distinct claims and all of the limitations are taught by the above cited art.

13.   With regard to claim 55, Ben-Dor discloses a system comprising:

a universal serial bus (USB) remote control host driver (discussed regarding claim 1); and

at least one universal serial bus (USB) device adapter, said USB remote control host driver being connected to at least one USB device via said at least one USB device adapter over a network (at least ¶41 and Fig 1);

wherein each of said USB device adapters including:

a memory for storing an assigned network address (IP address, ¶42);

a network protocol stack, said protocol stack for encapsulating USB packets in network packets and for decapsulating USB packets from network packets (¶71);

a bridging task (USB tunneling redirector) for receiving USB packets (URBs) from one or more USB devices coupled to the corresponding USB device adapters and for passing USB device addressing information and said USB packets (¶69) to said network protocol stack (¶73).

14.   With regard to claim 56, Ben-Dor further discloses that said polling routine is further configured to contact each of said USB device adapters which responded to the polling in accordance with the master list, identify each of said USB devices connected to each USB device adapter, and store the identifications of the USB devices in said memory (each device adapter transmits a topology of its local bus)(at least ¶68-69 and 159-172).

15.   With regard to claim 57, Ben-Dor further discloses that the network packets are Ethernet packets (¶90-91).

16.   Claims 58-64 are rejected under the same rationale as claims 55-57, since they recite substantially identical subject matter. Any differences between the claims do not

result in patentably distinct claims and all of the limitations are taught by the above cited

art.

17.   Claims 6-10, 12, 36-40, 42, 45, 48-50, 52 and 54 are rejected under 35 U.S.C.

103(a) as being unpatentable over Ben-Dor et al. (US 2002/0141418) in view of Gonno

(US 6,404,739) further in view of Krishnan (US 6,157,950).

18.   With regard to claims 6 and 36, while the system disclosed by Ben-Dor shows

substantial features of the claimed invention (discussed above regarding claim 1), it fails

to specifically disclose an Internet gateway containing the USB remote host control

driver.

Krishnan teaches connecting peripheral devices to a local area network and

providing an Internet gateway to enable remote access to the peripherals via the

Internet (Col 2, Lines 7-46 and Col. 3, Lines 21-28). This would have been an

advantageous addition to the system disclosed by Ben-Dor since it would have allowed

the USB devices to be accessed by hosts via the Internet, providing access to devices

not typically accessible remotely (Col 1, Lines 46-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to incorporate the USB remote control host driver into an

Internet gateway in order to enable access to the USB devices via the Internet.

19.   With regard to claims 7 and 37, Ben-Dor further discloses that the local network

is an Ethernet (Fig. 1, 202, ¶90-91).

20.   With regard to claims 8 and 38, Ben-Dor further discloses a processor for

receiving unencapsulated USB packets from the protocol stack (¶71 lines 14-17).

21.   With regard to claims 9 and 39, Ben-Dor further discloses a connection to a local

video monitor (Fig. 1c, 204).

22.   With regard to claims 10 and 40, Krishnan further discloses a gateway

connection to a local telephone (Col. 1, Lines 33-36).

23.   With regard to claims 12 and 42, Krishnan further discloses a gateway

connection to a public telephone network (Fig. 8, Col. 11, Lines 41-55).

24.   With regard to claim 49, Ben-Dor further discloses that said polling routine is

further configured to contact each of said USB device adapters which responded to the

polling in accordance with the master list, identify each of said USB devices connected

to each USB device adapter, and store the identifications of the USB devices in said

memory (each device adapter transmits a topology of its local bus)(at least ¶68-69 and

159-172).

25.   Claims 45 and 48 are rejected under the same rationale as claim 6, since they recite substantially identical subject matter. Any differences between the claims do not result in patentably distinct claims and all of the limitations are taught by the above cited art.

26.   Claims 50, 52 and 54 are rejected under the same rationale as claim 49, since they recite substantially identical subject matter. Any differences between the claims do not result in patentably distinct claims and all of the limitations are taught by the above cited art.

27.   Claims 11 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ben-Dor et al. (US 2002/0141418) in view of Gonno (US 6,404,739) further in view of Krishnan (US 6,157,950) further in view of Gottfurcht et al. (US 6,611,881).

28.   With regard to claims 11 and 41, while the system disclosed by Ben-Dor in view of Krishnan shows substantial features of the claimed invention (discussed above), it fails to specifically disclose means for connecting to a public television cable.

Gottfurcht teaches connecting to the Internet via a number of means, including a television cable (Col 5, Lines 39-43). Such a connection is old and well-known in the art and is known for its large bandwidth at fairly low cost. It would have be apparent to one of ordinary skill in the art that such a connection could be used if so desired by a system designer.

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to connect to the network via a public television cable.

29.   Claims 65-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Ben-Dor et al. (US 2002/0141418) in view of Gonno (US 6,404,739) further in view of

Official Notice.

30.   With regard to claims 65 and 66, while the system disclosed by Ben-Dor shows

substantial features of the claimed invention (discussed above), it fails to disclose how

the candidate list is configured, only noting that it is a list of devices from which a RPS

announcement multicast ahs not been received.

The Examiner takes Official Notice that it was notoriously well known in the art at

the time the invention was made to automatically configure lists of network devices

using "plug-and-play" type routines as well as manually configure the list of devices via

user input. One of ordinary skill in the art would have been aware of these alternatives

and would have weighed the benefits of automatic configuration such as speed and

convenience with the customization that manual configuration allows.

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to permit automatic or manual configuration of the

candidate list.

31.   Claims 67-76 are rejected under the same rationale as claims 65 and 66, since

they recite substantially identical subject matter. Any differences between the claims do

not result in patentably distinct claims and all of the limitations are taught by the above

cited art.

Conclusion

32.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

33.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to AARON STRANGE whose telephone number is

(571)272-3959. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Glenton B. Burgess/
Supervisory Patent Examiner, Art Unit 2153

/A. S./
Examiner, Art Unit 2153